

The Honorable Richard A. Jones

UNITED STATES DISTRICT COURT FOR THE
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

UNITED STATES OF AMERICA,
Plaintiff

NO. CR18-0277RAJ

SENTENCING MEMORANDUM

v.

CRAIG LORCH and JEFFREY ZIRKLE,
Defendants

I. INTRODUCTION

Defendants Craig Lorch and Jeffrey Zirkle are to be sentenced for a seven-year fraud in which they enriched themselves while knowingly exposing foreign workers to hazardous electronic waste. Defendants perpetrated this fraud in their roles as owners and co-CEOs of Total Reclaim, the Northwest's largest electronic waste recycler.

Lorch and Zirkle built their business by marketing Total Reclaim as *the* gold standard for environmentally-sound electronics recycling. Their marketing materials warned of the health hazards posed by electronic waste, and specifically, by flat screen monitors. Because flat screen monitors contain mercury, defendants cautioned, workers can suffer organ damage and mental impairment if they disassemble the monitors without proper safety precautions.

1 Lorch and Zirkle promised that Total Reclaim would prevent human exposure to
2 mercury and other toxic material by following the most rigorous environmental
3 standards. In particular, Lorch and Zirkle pledged never to export electronic waste to
4 developing countries where, it is well known, electronics are disassembled under
5 conditions that poison workers and the environment.

6 Based on Lorch and Zirkle's promises, government and private entities across
7 three states hired Total Reclaim to recycle millions of pounds of electronic waste. Total
8 Reclaim became the largest participant in "E-Cycle Washington," a program created by
9 the Washington legislature. E-Cycle Washington provides for the safe disposal of
10 electronics by allowing consumers to deposit their used electronics for free at collection
11 centers around the state. E-Cycle Washington paid defendants millions of dollars a year
12 to process the electronics according to specific standards, including a prohibition on
13 exports to developing countries. As a result, untold thousands of Washingtonians
14 dutifully deposited their used monitors and other electronic devices at E-Cycle
15 Washington facilities, trusting that defendants would safely take care of the devices as
16 they had promised.

17 Lorch and Zirkle made millions of dollars each, as Total Reclaim grew to become
18 the region's largest electronics recycler. But the defendants' success was built on a lie.
19 Unbeknownst to Lorch and Zirkle's customers, and contrary to their promises, defendants
20 secretly caused over 8.3 million pounds of mercury-containing flat screen monitors to be
21 exported to Hong Kong. There, many of the devices were disassembled by Chinese
22 workers under conditions that exposed the workers to precisely the risks that Lorch and
23 Zirkle had warned of—and were paid to prevent. This arrangement saved defendants
24 millions of dollars, generated a new income stream, and allowed Total Reclaim to
25 effectively corner the recycling market by undercutting the prices of their rivals.

26 Lorch and Zirkle's crime has all the hallmarks of a classic financial fraud. It
27 includes lies to customers and auditors, the falsification of hundreds of documents,

1 millions of dollars in ill-gotten gains, and a cover-up after the fraud was discovered. But
2 this offense stands apart from the typical fraud because the greatest damage is not
3 measured in dollars and cents. Rather, it lies in the health consequences that resulted
4 from defendants' calculated choice to prioritize their own economic well-being over the
5 health of faceless foreign workers. The United States submits that a 60-month sentence
6 for each defendant is necessary to reflect the seriousness of the offense, to deter others
7 from engaging in similar conduct, to promote respect for the law, and to provide just
8 punishment.

9 In addition to this Sentencing Memorandum, the United States is submitting a
10 memorandum prepared by Dr. Kristen Keteles, an EPA toxicologist. Dr. Keteles has
11 reviewed relevant case materials and academic research. Her memorandum, which is
12 attached hereto as Exhibit A, outlines the health consequences of Lorch and Zirkle's
13 crime. In addition, Jim Puckett, the founder of the Basel Action Network ("BAN"), will
14 address the Court at sentencing. BAN is a non-profit organization that works to prevent
15 the exportation of electronic waste to developing countries, and developed the "E-
16 Stewards" accreditation that defendants obtained through their deception. Additional
17 victims, as well as concerned members of the public, have submitted written statements
18 for the Court's consideration.

19 II. BACKGROUND

20 A. The Hazards of Electronic Waste and the Development of E-Cycling Safety 21 Standards

22 In the 1980s, industrialized countries, including the United States, began exporting
23 massive amounts of electronic waste to developing countries in Asia and Africa. Because
24 electronic waste contains hazardous materials like lead and mercury, and because the
25 materials were not properly handled in the developing countries, studies and public
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1 reporting have shown that these international shipments literally poison people and the
2 environment in the developing countries.¹

3 To address this issue, the United Nations produced an international protocol called
4 the “Basel Convention,” and later an amendment to it known as the “BAN Amendment.”
5 Together, the Basel Convention and BAN Amendment prohibit signatory countries from
6 exporting hazardous material (including mercury) from developed countries such as the
7 United States to developing countries (known as “non OECD” countries) like China. 186
8 countries ratified the Basel Convention. However, while the United States signed the
9 convention in 1989, Congress never ratified it.

10 When Congress did not ratify the Basel Convention, the Washington State
11 Legislature, the City of Seattle, and other public and private organizations in the
12 Northwest took steps to ensure that hazardous electronic waste from this community
13 would not be exported to developing countries. In 2006, the Washington Legislature
14 passed legislation creating a program called “E-Cycle Washington.” Under E-Cycle
15 Washington, consumers can drop off used electronics for free at designated E-Cycle
16 facilities such as Goodwill Industries outlets. The E-Cycle Washington program then
17 pays electronics recyclers to collect the materials and process them in accordance with
18 safety and environmental standards, including standards set out in the Washington
19 Administrative Code (“WAC”). E-Cycle Washington is funded by contributions from
20 electronics manufacturers, and is administered by a quasi-public entity called the
21 Washington Materials Management and Financing Authority (“WMMFA”).

22 The WACs applicable to E-Cycle Washington require, *inter alia*, that participating
23 recyclers remove all “materials of concern” (including mercury) from products destined
24 for recycling. WAC 173-900-650. E-Cycle Washington requirements further proscribe
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26 ¹ E.g., *Exporting Harm: The High Tech Trashing of Asia*, (video) (available at
27 youtube.com/watch?v=yDSWGV3jGek); *Effects of Electronic Waste on Developing Countries*, Adv. Recycling
28 Waste Manag. 2: 128 (2017); *Handling E-waste in Developed and Developing Countries: Initiatives, Practices, and Consequences*, Sci of the Tot. Environ. 463: 1147-1153 (2013).

recyclers from exporting materials of concern to developing countries without receiving special permission from the destination country. PSR ¶ 15. Recyclers that participate in E-Cycle Washington must submit to periodic audits to show they are complying with program requirements. *Id.* Oregon operates a similar program called “Oregon E-Cycles.”

In addition, a Seattle-based nonprofit organization called the Basel Action Network (“BAN”) established an accreditation process for recyclers seeking to promote themselves to customers as green recyclers. PSR ¶ 13. The accreditation, which is known as the “E-Stewards” accreditation, requires, *inter alia*, that recyclers comply with the Basel Convention’s prohibition on exporting electronic waste to developing countries. *Id.* As with E-Cycle Washington, companies with the E-Stewards certification must submit to annual audits. Many of the organizations that contract to recycle electronics (*i.e.*, Total Reclaim’s customers) will only do business with electronics recyclers that are accredited as E-Stewards. *Id.* ¶ 9.

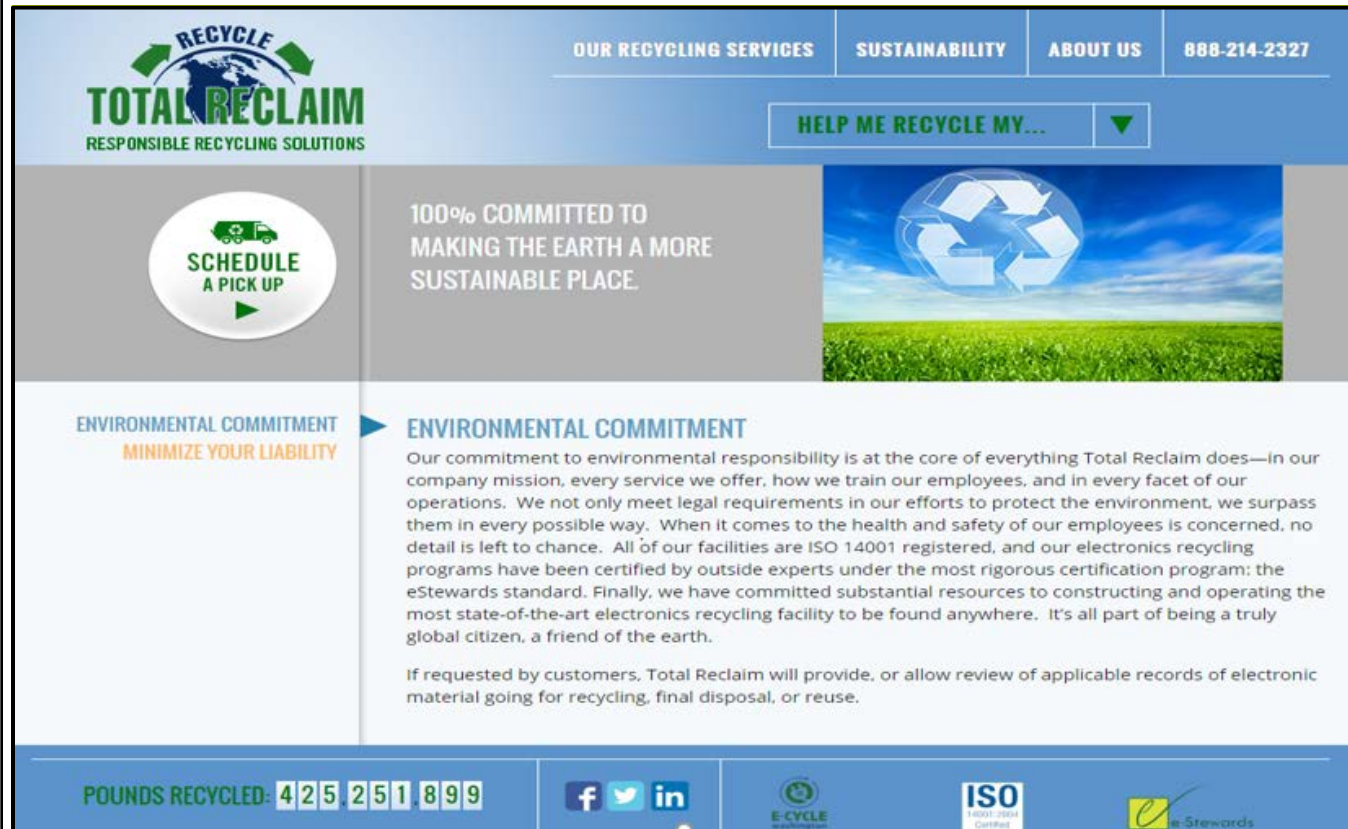
B. Defendants Marketed Total Reclaim as the Gold Standard for Safe Recycling.

Defendants are the owners and co-CEOs of Total Reclaim, the Northwest’s largest E-Cycling company, and the biggest participant (by far) in E-Cycle Washington. Total Reclaim was also a major participant in Oregon E-Cycles, and served such entities as the City of Seattle, the University of Washington, the City of Juneau, and Greenstar Alaska, which services the Alaskan interior.

Defendants achieved this business success by representing Total Reclaim as *the* industry leader for responsible E-Cycling. For example, Lorch and Zirkle promoted the fact that Total Reclaim was one of the first 12 electronics recyclers nationwide to execute the “Electronics Recycler’s Pledge of True Stewardship.” PSR ¶ 12; Ex. C. Under this pledge, which Total Reclaim posted on its website, Total Reclaim promised that “[w]e will not allow the export of hazardous E-waste we handle to be exported from developed to developing countries.” *Id.* Lorch enjoyed a very close relationship with Jim Puckett,

the founder of BAN (the Seattle non-profit), and BAN held Total Reclaim out as the premier example of a responsible recycling company. For example, Lorch appeared as a commenter in a BAN documentary called “Exporting Harm: The High Tech Trashing of Asia,” which discussed the dangers of shipping electronics to developing countries.²

Lorch and Zirkle promoted Total Reclaim’s green recycling practices in many other ways. Total Reclaim’s web page, which is set out below, stated that “our commitment to environmental responsibility is at the core of everything Total Reclaim does.” PSR ¶ 12. The web page emphasized Total Reclaim’s accreditation “under the most rigorous certification program: the E-Steward standard.” It characterized Total Reclaim as “a friend of the earth”:



² The video is available at <https://www.youtube.com/watch?v=yDSWGV3jGek>.
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Similarly, Total Reclaim distributed marketing materials to consumers stating that, because of Total Reclaim's practices, "potentially toxic material contained in e-waste is recovered and kept out of landfills and the environment," and that "we conduct detailed audits of our downstream destinations to ensure they comply with the highest environmental standards." Ex. D. Lorch and Zirkle both included the phrase "E-Steward Certified" in their email signature blocks, so every email they sent reminded customers of this certification. *E.g.*, Ex. E.

Finally, Total Reclaim's website specifically detailed the hazards of mercury in liquid crystal display ("LCD" or "flat screen") monitors, pointing out that mercury exposure can result in "organ damage, mental impairment, and a variety of other symptoms":

TOTAL RECLAIM
ENVIRONMENTAL SERVICES

Computer and Electronics Recycling EcoLights Lamp Recycling Refrigerant Services Appliance/HVAC Recycling Total Reclaim

The e-Waste Problem > The E-Waste Problem

HOW TOXIC?
E-waste contains toxic materials such as lead, mercury, cadmium and brominated flame retardants. These materials are considered bio-accumulative, which means they concentrate in fatty tissues where they can have severe, negative impacts on fetal development and on nursing infants. It has been estimated that consumer electronics may be responsible for up to 40% of the lead found in landfills. (Links to more comprehensive information on e-waste toxins and their effects can be found on our [Useful Links](#) page.)

<p>Mercury Found in <u>all</u> fluorescent lamps, printed circuit boards, laptops and LCD screen backlights</p>	<p>Mercury in lakes and rivers converts to methylated mercury in sediments. The toxin can then accumulate in living organisms and travel up the food chain. Mercury can adversely affect a baby's growing brain and nervous system. Adults can suffer organ damage, mental impairment, and a variety of other symptoms.</p>
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1 In this way, defendants were promising, as a selling point, that Total Reclaim would
2 prevent human exposure to the serious health effects of mercury from LCD screens.

3 Defendants also made specific contractual promises to their customers that Total
4 Reclaim would not allow the material they handled to be exported to developing
5 countries. As noted above, E-Cycle Washington prohibits this practice, and Total
6 Reclaim stated in its service contract with WMMFA (which administers E-Cycle
7 Washington) that it would comply with these standards. PSR ¶ 14. As another example,
8 Total Reclaim agreed in its contract with the City of Seattle that it would maintain the E-
9 Stewards certification, which in turn prohibited the export of electronics to developing
10 countries. *Id.* ¶ 16. In numerous other agreements with its customers, Total Reclaim
11 either promised to maintain an E-Stewards certification, or specifically promised not to
12 export hazardous e-waste to the developing world. *Id.*

13 **C. Defendants Profited Richly From Their Business.**

14 As Total Reclaim became the premier electronics recycler in the Northwest, and
15 the largest participant in E-Cycle Washington, Lorch and Zirkle each made millions of
16 dollars. PSR ¶¶ 86 (Lorch) and 87 (Zirkle). Between 2008 and 2015, Lorch and Zirkle
17 *each* earned over \$7.8 million in income from the business. *Id.* In 2013 alone, each of
18 them earned \$1.85 million. *Id.* A table setting out defendants' substantial annual
19 earnings from Total Reclaim is set out in the PSRs. *Id.*

20 **D. Defendants Secretly Exported Millions of Pounds of LCDs to Hong Kong.**

21 Over the same period that defendants held out Total Reclaim as the leader in green
22 recycling, they were secretly and knowingly causing millions pounds of some of the most
23 dangerous electronics they handled to be exported to Hong Kong, in clear violation of
24 their public statements, promises and contracts. *Id.*

25 Beginning in around 2008, Total Reclaim started receiving a growing volume of
26 LCD monitors. PSR ¶ 17. LCD monitors contain fluorescent light bulbs known as
27 CCFLs, which contain mercury. *Id.* When LCD monitors are disassembled, the CCFLs

1 are easily broken, releasing poisonous mercury into the air and risking harm to workers
2 or others near the processing operation. Ex. A at 1-3. As a result, LCD monitors are
3 particularly expensive to process safely.

4 Total Reclaim lacked the ability to safely recycle LCD monitors in-house.
5 PSR ¶ 17. To comply with the standards it had promised to follow, it would have had to
6 pay a third party to do so off-site. According to a Department of Ecology analysis, this
7 would have cost Total Reclaim a total of approximately \$2.6 million over the offense
8 period. PSR ¶ 27. Lorch and Zirkle agreed that instead of incurring this cost, which
9 would have reduced their personal profits, they would secretly sell the LCD monitors to a
10 company called M-Stream, which would in turn ship the monitors to Hong Kong.
11 *Id.* ¶ 17. Hong Kong is a party to the Basel Convention and does not permit hazardous
12 electronic waste to be imported from the United States. PSR ¶ 17.

13 Between 2009 and January 2016, Lorch and Zirkle sold *8.3 million pounds* of
14 LCD monitors to M-Stream, knowing that M-Stream would then ship the monitors to
15 Hong Kong. *Id.* Under this arrangement, Total Reclaim avoided the cost of processing
16 the LCDs (as it had promised to do), and instead was paid by M-Stream for the monitors.
17 As a result, instead of incurring the estimated \$2.6 million cost to recycle the monitors,
18 Total Reclaim actually *collected* over \$1 million from M-Stream for the monitors, on top
19 of the money Total Reclaim's customers had paid Total Reclaim to process them. *Id.*

20 **E. Defendants' Concealment of their Exportation Practice**

21 Lorch and Zirkle took extensive steps to hide this practice from their customers
22 and environmental auditors. When Total Reclaim received LCD monitors, it moved them
23 off site to a secret location on Seattle's Harbor Island, where it stockpiled the monitors
24 out of sight in shipping containers until they were ready to be shipped. PSR ¶ 19. Lorch
25 and Zirkle never disclosed this Harbor Island facility to their auditors. *Id.*

26 Further, Lorch and Zirkle routinely falsified documents to make it appear to
27 auditors and customers that they recycled LCD monitors domestically. For example,

Total Reclaim was required to provide the auditors with documents known as “End Destination Tables,” in which Total Reclaim accounted for the disposition of all material it processed. PSR ¶ 20. Total Reclaim provided auditors with falsified End Destination Tables each time it was audited. *Id.* In the example excerpted below, Lorch and Zirkle represented that the ultimate disposal site for mercury-bearing products was Salina, Kansas, when they knew full well they were actually shipping mercury-bearing LCDs to Hong Kong:



End Destination Table

Date of Last Review: 12/1/15

Recycling Process or Material	Waste Category	Waste Transfer Site or Intermediate Processing Site	Waste Transfer Site or Intermediate Processing Site	Ultimate Disposal Site & Disposal Method
Mercury Bearing Products and Mercury Phosphor Powder	RCRA	<u>Intermediary</u> Lighting Resources, LLC 805 East Francis St. Ontario, CA 91761 ID#: CAR 000 156 125 Dan Gillespie (909) 923-7252 (Transfer)	<u>Intermediary</u> Lighting Resources, LLC 1522 East Victory St. Suite 4 Phoenix, AZ 85040 ID#: AZD 983 476 680 Barry Rathkamp (602) 276-4278	<u>Mercury Retort</u> Lighting Resources, LLC 498 Park 800 Drive Greenwood, IN 46143 ID#: INO 000 351 387 Daniel Willis (317) 888-3889
				<u>Rare Earth Metal Recovery</u> Philips Lighting Company 3861 South Ninth Street Salina, KS 67401 785-826-3500

Similarly, Lorch and Zirkle submitted falsified annual reports to WMMFA. *Id.* In the example below, Lorch and Zirkle represented that they were not exporting materials to any non-OECD (developing) countries:

WMMFA Annual Report information required by state - per contract - please complete and return to jfriedrick@wmmfa.net by Feb. 15, 2010

Processor name	Contact name:	Contact phone #	Due Date:
Total Reclaim, Inc	Craig Lorch, Jeff Zirkle & Scott Ralph	206-343-7443	Please complete all cells and return by February 15, 2010

Quantity in pounds of electronic products, electronic components, and electronic scrap that have been exported to countries **NOT** members of the Organization for Economic Cooperation and Development or the European Union.

Pounds shipped to:	NON-OECD destination country LIST Non- OECD Country

At Lorch and Zirkle's direction, several Total Reclaim employees participated in the preparation of these fraudulent documents, and the submission of them to Total Reclaim's auditors and customers. PSR ¶ 18.

F. The BAN Report and Defendants' Efforts to Cover Up Their Fraud

1. BAN's Discovery of the Fraud


In 2015, BAN undertook an initiative to determine whether E-Steward-accredited recyclers were secretly sending electronics overseas in violation of their accreditation. To investigate this, BAN placed GPS tracking devices in electronics products and dropped the products off at E-Cycling stations around the country. Ex. B (BAN Evidentiary Report). BAN did not suspect that Total Reclaim, which BAN regarded as the gold standard, was exporting electronics. In fact, BAN did not deposit any GPS-containing products in Washington. *Id.* However, BAN did deposit some trackers at recycling facilities in Portland. *Id.* The tracking data for those devices showed that the devices travelled north to Total Reclaim's Seattle facility, and then to Harbor Island. *Id.* To BAN founder Jim Puckett's great surprise, the data showed that the monitors then travelled across the Pacific Ocean to Hong Kong. *Id.*

2. Defendants' Attempt to Cover Up the Fraud

Puckett confronted Lorch and Zirkle with the GPS data. Lorch and Zirkle denied exporting LCDs to Hong Kong. PSR ¶ 22. They attempted to explain the GPS data by suggesting that BAN's GPS trackers must have become separated from the LCD monitors and been exported to Hong Kong in a shipment of plastic. *Id.*

To support their false denials, Lorch and Zirkle set about falsifying hundreds more documents. *Id.* In particular, Lorch altered Total Reclaim shipping manifests to make it appear that M-Stream was shipping plastic, rather than flat screens, to Hong Kong. *Id.* In the example below, the original (genuine) shipping manifest correctly identifies the shipped material as "flat screens":

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TOTAL RECLAIM INC.
2200 6th Ave S, Seattle WA 98134
PH: 206-343-7443
FAX: 206-343-7445

SHIPPING MANIFEST

ITEM TALLY				SHIPPING INFORMATION	
Item Description	Gross Wt	Tare Wt	Net Wt	Consignee	M Stream LLC
1 Flat Screens	436	90	346	Carrier	Maersk Lines
2 Flat Screens	813	90	723	Booking No.	954908412
3 Flat Screens	741	90	651	Container No.	MSKU473368-1
4 Flat Screens	619	90	529	Seal No.	0079259
5 Flat Screens	636	90	546	Vessel & Voyage	Wide Alpha - 543S
6 Flat Screens	826	90	736	Port of Loading	Seattle, WA
7 Flat Screens	633	90	543		
8 Flat Screens	563	40	523		
9 Flat Screens	516	40	476		
10 Flat Screens	790	90	700		
11 Flat Screens	643	90	553		
12 Flat Screens	638	90	548		
13 Flat Screens	433	40	393		
14 Flat Screens	648	90	558		
15 Flat Screens	729	90	639		
16 Flat Screens	835	90	745		

TARE WEIGHTS	
Container Tare	10,690
Chassis Tare	6,900
Total	17,590

SCALE WEIGHTS	
Gross Weight	45,493
Tare Weight	17,590
Net Weight	27,903

In the altered version of the same manifest, Lorch changed the descriptions from “flat screens” to “plastic mix,” supporting Lorch’s claim that the trackers must have fallen into a container of plastic:

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TOTAL RECLAIM INC.
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SHIPPING MANIFEST

ITEM TALLY				SHIPPING INFORMATION	
Item Description	Gross Wt	Tare Wt	Net Wt	Consignee	M Stream LLC
1 Plastic Mix	436	90	346	Carrier	Maersk Lines
2 Plastic Mix	813	90	723	Booking No.	954908412
3 Plastic Mix	741	90	651	Container No.	MSKU473368-1
4 Plastic Mix	619	90	529	Seal No.	0079259
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6 Plastic Mix	826	90	736	Port of Loading	Seattle, WA
7 Plastic Mix	633	90	543		
8 Plastic Mix	563	40	523		
9 Plastic Mix	516	40	476		
10 Plastic Mix	790	90	700		
11 Plastic Mix	643	90	553		
12 Plastic Mix	638	90	548		
13 Plastic Mix	433	40	393		
14 Plastic Mix	648	90	558		
15 Plastic Mix	729	90	639		
16 Plastic Mix	835	90	745		

TARE WEIGHTS	
Container Tare	10,690
Chassis Tare	6,900
Total	17,590

SCALE WEIGHTS	
Gross Weight	45,493
Tare Weight	17,590
Net Weight	27,903

Lorch falsified approximately 370 documents in this way. *Id.* Defendants also asked M-Stream’s owner to falsify other shipping documents to make it appear that M-Stream was only exporting plastic. *Id.* They then provided the falsified documents to BAN. *Id.*

3. BAN’s Evidentiary Report

Unconvinced by Lorch and Zirkle’s denials and the fabricated documents, Puckett and other BAN representatives travelled to Hong Kong to investigate. *See* Ex. B. They

1 were joined by a PBS News Hour news crew, which later aired a segment on BAN's GPS
2 project. BAN used the GPS data to identify the specific sites where the LCD monitors
3 had been shipped. BAN representatives entered the sites and found Gaylords (containers)
4 with Total Reclaim labels, including labels for Total Reclaim Earth Day recycling events.
5 *Id.* at p. 9 (photo of Total Reclaim Earth Day Gaylord found at Hong Kong processing
6 site). BAN representatives observed that LCD monitors were taken apart using "a
7 primitive process" that "relied on mainland Chinese laborers who spend all day opening
8 the CCFL-type LCDs, smashing them apart, and throwing" the materials into different
9 piles. PSR ¶ 21. Below is a BAN photograph of one of the sites:



23 BAN further reported that, when the LCD monitors were processed at the facility,
24 the mercury-containing CCFLs were handled in a manner dangerous to the workers and
25 the environment. *Id.* BAN reported that "the pile of smashed metal on the ground below
26 the workstation contained significant quantities of broken CCFLs. No precautions were
27 taken with these mercury-laden tubes, inevitably releasing mercury into the ecosystem

1 and workplace there.” *Id.* The CCFLs are the thin white tubes visible in the BAN
 2 photograph below:



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13 BAN prepared a report detailing the evidence against Total Reclaim. Ex. B. After
 14 reviewing the report, Lorch and Zirkle acknowledged to BAN that they had exported
 15 LCDs to Hong Kong. *Id.* at 4. However, Lorch and Zirkle still did not come completely
 16 clean. According to BAN’s report, Lorch and Zirkle “refused to provide” information
 17 about how long they had been exporting LCDs to Hong Kong. *Id.* Total Reclaim
 18 released a public statement stating that it did not dispute the BAN report’s findings, and
 19 regretted its actions. Ex. F. However, defendants’ public statement falsely characterized
 20 Total Reclaim’s practice as a “short term business decision,” when in fact Lorch and
 21 Zirkle had engaged in the practice for at least seven years. *Id.*

22 After learning of the BAN report, WMMFA, the administrator of E-Cycle
 23 Washington, requested that Total Reclaim repay WMMFA the money WMMFA had paid
 24 Total Reclaim to process LCDs. Consistent with their false public claim that the practice
 25 was a “short-term business decision,” Lorch and Zirkle only provided WMMFA with
 26 data showing LCD exports to Hong Kong for the year 2015. Ex. G. Defendants did not
 27 disclose to WMMFA that they been engaged in this practice since at least 2009. *Id.*

28 After receiving this data, WMMFA agreed to release all of its claims against Total

1 Reclaim in return for a settlement payment of \$215,567, which was based only on figures
2 for 2015. Ex. H.

3 Further, under the terms of the settlement, Total Reclaim agreed that it would
4 “pay” WMMFA only in the form of a 10% credit on future invoices. *Id.* ¶ 1. Thus, under
5 the agreement, WMMFA would receive compensation only if it continued to use Total
6 Reclaim—the company that had just defrauded it. Even though WMMFA is a quasi-
7 public entity created by the legislature, the settlement agreement required that the terms
8 of the settlement be kept secret from the public. *Id.* ¶ 5.

9 **G. The Health Consequences of Defendants’ Conduct**

10 To provide more detail on the health effects of Lorch and Zirkle’s conduct, the
11 government is submitting a memorandum by Dr. Kristen Keteles, a toxicologist with the
12 Environmental Protection Agency. *See* Ex. A. Dr. Keteles has reviewed BAN’s
13 evidentiary report; the photographs BAN took of the Hong Kong facilities where the
14 LCDs were shipped; and the relevant academic literature about mercury and the hazards
15 of electronics processing. Based on this review, Dr. Keteles’s memorandum makes the
16 following points, among others:

- 17 • “Mercury was likely released from broken CCFLs in the hazardous
18 electronic waste exported by Total Reclaim to an informal recycling
19 operation in Hong Kong.” Ex. A at 1.
- 20 • “Workers at the informal electronic waste recycling operation in Hong
21 Kong were likely exposed to mercury through the inhalation of the vapors
22 from broken CCFLs and through skin contact with the powder and glass
23 from the CCFLs, which also contain mercury.” *Id.* at 2;
- 24 • “Mercury is well known for its toxicity to living things, even at very low
25 levels of exposure. . . . There is clear evidence of damage to the central
26 nervous system in workers exposed to mercury, often resulting in
27 neuropsychological effects. . . . Results from occupational studies suggest
28 that the neurological effects from mercury exposure are irreversible. . . .
Because mercury readily crosses the placenta, the children of pregnant
female workers are especially vulnerable to effects from exposure to
mercury.” *Id.* at 1, 3; and

- “The community near the informal electronic waste facility in Hong Kong may also be exposed to mercury in dust and through contaminated food from the transport of the mercury-containing dust and vapor off site. Given the amount of mercury in electronic devices, the volume of waste, and the fact that mercury is highly mobile in the environment, improper disposal of electronic waste can cause excessive mercury releases, resulting in significant contributions to global mercury emissions.” (*Id.* at 3.)

In short, Lorch and Zirkle’s fraudulent conduct caused the very health risks that they were hired to avoid.

H. The State and Federal Investigations

Following BAN’s disclosure of Total Reclaim’s conduct, the Washington Department of Ecology (“DOE”), Oregon Department Environmental Quality (“DEQ”), and United States Environmental Protection Agency Criminal Investigations Division (EPA-CID) all opened investigations into Total Reclaim. On September 1, 2016, DOE ordered Total Reclaim to pay a \$444,000 fine for its exportation of LCDs to Hong Kong. On October 12, 2017, DOE ordered a second, \$67,500 fine against Total Reclaim for unlawfully storing hundreds of thousands of LCD monitors after BAN disclosed Total Reclaim’s practices.

Total Reclaim appealed both fines, contending, *inter alia*, that the exported material was not dangerous waste under relevant regulations. On November 15, 2018, Total Reclaim and DOE entered into a settlement agreement in which Total Reclaim agreed to pay DOE \$83,625 in penalties, and pay \$300,000 to Western States Project, an interstate consortium that supports environmental enforcement operation and training. Total Reclaim also settled with Oregon DEQ for \$145,143, and with the Oregon Department of Justice for \$553,000.

To their credit, defendants were fully cooperative with the investigation by EPA-CID and the United States Attorney’s Office. Total Reclaim provided documents and other information in response to numerous government requests both before and after

entering guilty pleas. Through counsel, defendants voluntarily disclosed that Lorch had falsified shipping manifests after learning that BAN had discovered the fraud.³

On November 16, 2018, following lengthy plea negotiations, Lorch and Zirkle each entered a pre-indictment guilty plea. Under the terms of the plea agreement, the government charged defendants with conspiracy to commit wire fraud under 18 U.S.C. § 371, and agreed to forego charges for wire fraud under 18 U.S.C. § 1343. This concession reduced the statutory maximum penalty from 20 years to five years, and reduced the base offense level under the Sentencing Guidelines from seven to six. The government also agreed not to pursue a corporate prosecution of Total Reclaim, which had already been the subject of administrative sanctions by DOE and DEQ.

III. SENTENCING GUIDELINES

The government concurs with Probation's guideline calculation, which is as follows:

<u>Item</u>	<u>Adjustment</u>	<u>Provision</u>
Base offense level	+6	2B1.1(a)(2)
Loss in excess of \$550,000	+14	2B1.1(b)(1)(H)
Conscious or reckless risk of serious bodily injury	+2	2B1.1(b)(16)(A)
Sophisticated means	+2	2B1.1(b)(11)
Organizer/leader	+4	3B1.1(a)
Abuse of trust/special skill	+2	3B1.3
Acceptance of Responsibility	-3	3E1.1(b)
Total	27	

³ While EPA-CID had previously discovered that Lorch had falsified the documents, defendants did at the time they made the disclosure that the government already knew about these falsified documents.

Defendants fall into Criminal History Category I, resulting in a guideline range of 70-87 months. However, the statutory maximum for the offense is 60 months. The government is aware of no disputes regarding that guideline calculation.

IV. RATIONALE FOR SENTENCING RECOMMENDATIONS

The government recommends that the Court sentence each defendant to a term of 60 months of imprisonment, which is the statutory maximum, but below the applicable United States Sentencing Guideline range. The sentence is necessary meet the goals set out in 18 U.S.C. § 3553 for the following reasons:

A. The Nature and Circumstances of the Offense are Extremely Serious.

The offense is aggravated in several respects.

First, this offense is aggravated far beyond the typical fraud case because its consequences are not simply economic. Lorch and Zirkle deliberately exposed workers to extremely serious health risks. Defendants were acutely aware that exposing workers to mercury puts them at risk of neurological disorders and organ damage, and poses even more severe risks to pregnant workers' unborn children. Indeed, defendants described these very risks on their own website, and pitched their customers on the promise that Total Reclaim would address those risks. Knowing all of this, defendants made the deliberate decision to cause millions of pounds of LCDs to be exported to Hong Kong, where Lorch and Zirkle knew the monitors could be disassembled without safety precautions. Worse, Lorch and Zirkle made this decision for the simple reason that they wanted to earn more money. In short, Lorch and Zirkle made a calculated decision to prioritize their own profits over the safety of the foreign workers they were hired to protect.

Second, Lorch and Zirkle's conduct represents an outrageous breach of the community's trust. Public and private organizations hired Total Reclaim based on defendants' promise that Total Reclaim could be trusted to act as a good environmental steward. Countless individual consumers made the effort to deposit their used LCDs at

1 Goodwill or other E-Cycle Washington facilities, believing they were doing their part to
2 prevent environmental and health damage. Producers of electronics products contributed
3 millions of dollars to fund the program. But at the same time defendants marketed Total
4 Reclaim as “a friend of the Earth” and warned of the dangers of mercury, they were
5 falsifying documents, lying to auditors, and causing millions of pounds of LCDs to be
6 shipped off to Asia to be dismantled by impoverished workers under conditions that
7 would never be allowed in this country.

8 The consequences of this breach of trust are far reaching. Defendants’ fraud
9 undermined public confidence in collective efforts to address environmental problems.
10 E-Cycle Washington is a model case of industry groups, the government, and individuals
11 working together to solve a serious environmental problem. But Lorch and Zirkle—two
12 key individuals entrusted with carrying out E-Cycle Washington—abused the program,
13 enriched themselves, and contributed to the very problem E-Cycle Washington was
14 created to solve. In doing so, defendants undermined public confidence not only in E-
15 Cycle Washington, but also in the notion that the community can work collectively to
16 solve the urgent environmental problems we face. After this offense, people may
17 understandably ask why they should make the effort to participate in similar programs
18 when they are abused by the people trusted to implement them. Accordingly, the
19 sentence must be calculated to show the public that fraud of this nature has very serious
20 consequences.

21 *Third*, the duration and scale of Lorch and Zirkle’s crime are extraordinary.
22 Contrary to their public claim that this was a “short term business decision,” Lorch and
23 Zirkle perpetuated this fraud for over seven years. The offense conduct involves
24 countless decisions over this period to start, continue, and hide the scheme. The volume
25 of material involved—8.3 million pounds of LCDs, which filled at least 430 shipping
26 containers—is breathtaking. And, defendants directed numerous employees, as well as
27

1 the owner of M-Stream, to participate in their fraud. The sentence must be proportionate
2 to the massive scale of the fraud.

3 *Fourth*, Lorch and Zirkle took extraordinary measures to conceal and cover up
4 their crime. They hid the monitors at a secret facility on Harbor Island. They repeatedly
5 lied to customers and auditors and provided them with falsified documents. When BAN
6 first discovered the practice, Lorch and Zirkle compounded their fraud by falsely denying
7 the conduct, falsifying hundreds more documents, and soliciting the owner of M-Stream
8 to falsify records as well. Even after BAN returned from Hong Kong with indisputable
9 proof of what Lorch and Zirkle had done, defendants falsely characterized the practice as
10 a “short term” one in their supposed public *mea culpa*. They then induced WMMFA to
11 settle with them for a fraction of its loss by providing WMMFA with incomplete or
12 inaccurate information; and they set up payment terms (a small credit against future
13 invoices) designed to benefit Total Reclaim (by ensuring a continued relationship with its
14 biggest customer) rather than to promptly remediate the financial damage to the public.
15 While Lorch and Zirkle ultimately did take responsibility for the full scope of the fraud, it
16 was only after a protracted cover up and when their backs were truly against the wall.

17 **B. General Deterrence Requires a Lengthy Sentence.**

18 General deterrence is a particularly important consideration in this case. Total
19 Reclaim’s conduct and this prosecution have been reported in E-Cycling trade
20 publications, so the entire industry will be made aware of the outcome of this sentencing.
21 Owners of other E-Cycling companies know that Lorch and Zirkle built the largest E-
22 Cycling business in the region in part by breaking the promises they made to their
23 customers and the community. Other business owners need to see that, ultimately, this
24 course of conduct does not pay, even if it earns their business millions of dollars in the
25 short run. The recommended 60-month sentences are necessary to deter other business
26 owners from engaging in this type of conduct in the future.

C. The Fact That LCDs Represented a Small Share of Total Reclaim's Business Does Not Mitigate the Offense.

The defense will likely point out that LCDs represented a relatively small percentage of Total Reclaim's business. But that figure is not an accurate measure of the magnitude of the misconduct. In assessing the health and environmental impact of the crime, it is irrelevant what percentage of Total Reclaim's material was *not* exported to Asia. What is relevant is the actual volume of material that *was* sent abroad—*8.3 million pounds*—a figure that defendants cannot minimize. Further, the Court should bear in mind that LCDs were among the most dangerous and difficult-to-process materials defendants were hired to handle. Thus, defendants abdicated their responsibilities when handling this particularly dangerous waste, that is, when the stakes were highest.

Finally, while it is true that LCDs represented a small share of Total Reclaim's business, it is also true that Total Reclaim's broader success in the industry was attributable in part to the offense conduct. Defendants' fraud enabled Total Reclaim to avoid the very high cost of processing LCDs—a cost faced by competitors who did not engage in fraud—and instead to make money selling them. This means that Total Reclaim's costs were far lower than those of its competitors, which allowed Total Reclaim to undercut competitors' prices and, in large part, take over the regional market for E-Cycling. In this respect, Total Reclaim's business model and success were predicated, in part, on fraud.

D. Defendants' History and Characteristics

Defendants' backgrounds include both aggravating and mitigating features.

On one hand, both Lorch and Zirkle have enjoyed means and advantages far beyond those available to the typical defendant. The defendants who come before this Court usually turn to crime, in part, because life has offered them limited options. Crime is typically accompanied by poverty, abuse, addiction, mental deficit, or other conditions. Those conditions do not excuse criminal behavior, but they partially explain it, and it is appropriate to consider them as mitigating factors. By the same token, defendants like

1 Lorch and Zirkle who do not face these types of disadvantages should be viewed as
2 relatively more culpable. *United States v. Stefonek*, 179 F.3d 1030, 1038 (7th Cir. 1999)
3 (“Criminals who have the education and training that enables people to make a decent
4 living without resorting to crime are more rather than less culpable than their desperately
5 poor and deprived brethren in crime.”). It is clear from the presentence reports that
6 neither Lorch nor Zirkle engaged in fraud to put food on the table or because of some
7 other compulsion, but simply because they wanted to promote their business and feather
8 their nests. In this respect, the offense was unusually calculated and volitional.

9 The government recognizes that there is also much to be admired in both
10 defendants’ professional and personal backgrounds. Professionally, defendants built a
11 company that provides a valuable service to the community, though that success was built
12 in part on the offense conduct. With respect to their personal backgrounds, Lorch
13 deserves credit for consistently giving back to his community, both financially and
14 through the commitment of his time. Similarly, Zirkle’s friends, family members, and
15 employees have submitted letters reflecting his close and supportive relationships with
16 them. At the same time, the government notes that these types of submissions are not
17 uncommon in white-collar cases, in part because white-collar defendants have access to
18 the resources that allow them to develop such submissions. And, as one court has
19 observed, “excellent character references are not out of the ordinary for an executive who
20 commits white-collar crime; one would be surprised to see a person rise to an elevated
21 position in business if people did not think highly of him or her.” *United States v.*
22 *McClatchey*, 316 F.3d 1122, 1135 (10th Cir. 2003). Therefore, while these factors may
23 justify a sentence somewhat below the guideline range (which is consistent with the
24 government’s recommendation), they do not justify the dramatic departure recommended
25 by the defense.

E. Sentences in Other Electronics Recycling Prosecutions

The government is aware of two other prosecutions involving fraud in the E-Cycling context. Both cases are out-of-district and involve different facts than those present here, but they provide useful points of reference for the present sentencing.

The first case is *United States v. Richter*, Cause No. CR11-376 in the District of Colorado. Richter was the owner of a recycling company called Executive Recycling, which secretly exported CRT (tube) televisions abroad. CRT televisions do not contain mercury, though they do contain lead. It does not appear that *Richter* involved evidence of damage to human health (such as that set out in Dr. Keteles's report); unlike this case, there was no enhancement applied for causing a risk of serious bodily injury. Further, the amount of material and money involved in *Richter*—142,917 televisions, for a loss of \$86,916—was a small fraction of that involved in the present case. Following a trial, the court sentenced Richter to 30 months. However, the Tenth Circuit reversed one of the convictions on evidentiary grounds. Richter then entered into a cooperation agreement with the government, which filed a 5K1.1 motion recommending a 22-month sentence. The court then sentenced Richter to 22 months of imprisonment.

The second prosecution is *United States v. Brundage*, Cause No. CR16-812 in the Northern District of Illinois. *Brundage* also involved the export of CRT (not LCD) monitors. As in *Richter*, the court did not apply an enhancement for bodily injury. The parties in *Brundage* agreed that customers paid Brundage \$537,781 in recycling fees—less than half the amount of fees involved in this case.⁴ The court sentenced Brundage to 36 months for the wire fraud conviction. The court also sentenced Brudage to a concurrent 36-month sentence for tax evasion.

Richter and *Brundage* both stand for the proposition that fraud involving the secret export of electronic waste must be punished with substantial prison sentences. The

⁴ The loss calculation in *Brundage* was ultimately higher than that here because it used a different methodology. In *Brundage*, the loss amount also included the value of the electronics

1 government submits, however, that the offense conduct in this case merits a longer
 2 sentence than that imposed in either of those cases. This is because of the health effects
 3 of mercury outlined by Dr. Keteles (and by defendants on their website); because of Total
 4 Reclaim's special role as a self-professed industry leader in green recycling; because of
 5 the vast amount of material involved in this case; and because of defendants' extensive
 6 efforts to conceal and cover up their fraud.

7 **V. CONCLUSION**

8 For the foregoing reasons, the government respectfully recommends that each
 9 defendant be sentenced to 60 months of imprisonment. In addition, the Court should
 10 order defendants to pay restitution to its customers in the agreed amount of \$945,663.

11 Dated: April 16, 2019

12
 13 *Seth Wilkinson*
 14 SETH WILKINSON
 15 Assistant United States Attorney
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22 **CERTIFICATE OF SERVICE**

23 I hereby certify that on April 16, 2019, I electronically filed the foregoing with the Clerk of the Court using the
 24 CM/ECF system which will send notification of such filing to the attorney(s) of record for the defendant(s).

25 /s/ Kylie Noble
 26 KYLIE NOBLE
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